



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2017-0042; Notice 2]

BMW of North America, LLC, Grant of Petition for Decision of Inconsequential Noncompliance

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Grant of petition.

SUMMARY: BMW of North America, LLC (BMW), a subsidiary of BMW AG, Munich, Germany, has determined that certain model year (MY) 2018 BMW M4 Coupe and BMW M4 convertible motor vehicles do not fully comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 110, *Tire Selection and Rims and Motor Home/Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of 4,536 kilograms (10,000 pounds) or Less*. BMW filed a noncompliance report dated April 26, 2017, and subsequently petitioned NHTSA on May 19, 2017, for a decision that the subject noncompliance is inconsequential as it relates to motor vehicle safety. This document announces the grant of BMW's petition.

FOR FURTHER INFORMATION CONTACT: Ahmad Barnes, Office of Vehicle Safety Compliance, the National Highway Traffic Safety Administration (NHTSA), telephone (202) 366-7236.

SUPPLEMENTARY INFORMATION:

I. Overview: BMW has determined that certain MY 2018 BMW M4 Coupe and BMW M4 convertible motor vehicles do not fully comply with one or more of the following paragraphs:

S4.3(a), S4.3(c) and S4.3(d) of FMVSS No. 110, *Tire Selection and Rims and Motor*

Home/Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with

*a GVWR of 4,536 kilograms (10,000 pounds) or Less (49 CFR 571.110). BMW filed a noncompliance report dated April 26, 2017, pursuant to 49 CFR part 573, *Defect and Noncompliance Responsibility and Reports*. BMW subsequently petitioned NHTSA on May 19, 2017, for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential as it relates to motor vehicle safety, pursuant to 49 U.S.C. 30118(d) and 30120(h) and 49 CFR part 556, *Exemption for Inconsequential Defect or Noncompliance*.*

Notice of receipt of BMW's petition was published in the **Federal Register** (82 FR 40640) with a 30-day public comment period, on August 25, 2017. One comment was received. To view the petition and all supporting documents log onto the Federal Docket Management System (FDMS) Web page at: <http://www.regulations.gov/>. Then follow the online search instruction to locate docket number "NHTSA-2017-0042."

II. Vehicles Involved: Approximately 93 MY 2018 BMW M4 Coupe and BMW M4 Convertible motor vehicles, manufactured between February 28, 2017, and March 24, 2017, are potentially involved.

III. Noncompliance: BMW describes three noncompliances of the affected vehicles equipped with a vehicle placard that may not fully conform to FMVSS No. 110. Although the affected vehicles were equipped with 20-inch tires, the FMVSS No. 110 vehicle placard states that the vehicles were equipped with 18-inch tires. Additionally, the vehicle placard for the BMW M4 Coupe states a vehicle capacity weight of 390 kilograms (kg) although it should state a vehicle capacity weight of 381 kg. Furthermore, the placard for the BMW M4 Convertible states a manufacturer's recommended cold tire inflation pressure of 32 psi when it should state a tire inflation pressure of 33 psi.

IV. Rule Requirements: Paragraph S4.3 of FMVSS No. 110 includes the requirements relevant to this petition. Each vehicle, except for a trailer or incomplete vehicle, shall show the information specified in paragraph S4.3 (a) through (g), and may show, at the manufacturer's

option, the information specified in paragraphs S4.3 (h) and (i), on a placard permanently affixed to the driver's side B-pillar. The information shall be in the English language and conform in color and format, not including the border surrounding the entire placard, as shown in the example set forth in Figure 1 of FMVSS No. 110. Additionally, the vehicle placard must state the vehicle manufacturer's recommended cold tire inflation pressure for front, rear and spare tires. The vehicle placard must state the tire size designation, indicated by the headings "size" or "original tire size" or "original size" and "spare tire" or "spare," for the tires installed at the time of first purchase for purposes other than resale.

V. Summary of BMW's Petition: The following views and arguments presented in this section, "V. Summary of BMW's Petition," are the views and arguments provided by BMW. They have not been evaluated by the Agency and do not reflect the views of the Agency. BMW describes the subject noncompliance and states its belief that the noncompliance is inconsequential as it relates to motor vehicle safety.

BMW states that the affected BMW M4 Coupe motor vehicles were equipped with 20-inch tires while the vehicle placard incorrectly states that the vehicles are equipped with 18-inch tires and indicates a vehicle capacity weight of 390kg. The placard should state that the vehicles are equipped with 20-inch tires and have a vehicle capacity weight of 381 kg.

Based on its analysis and evaluation of the components, and systems including brakes, steering, and suspension in the BMW M4 Coupe motor vehicles, BMW believes that the incorrect vehicle capacity weight of 390 kg provided on the noncompliant vehicle placard "will not result in a vehicle overload condition." Furthermore, BMW explains that "the vehicle was designed to account for a larger vehicle capacity weight than the weight stated on the tire information placard."

BMW states that the BMW M4 Coupe vehicles "are equipped with a Part 567 certification label which states accurate information for the Gross Vehicle Weight Rating

(GVWR).” Therefore, BMW contends that “a vehicle operator who uses this information would be able to determine the correct maximum vehicle weight.”

The BMW M4 Convertible vehicles were equipped with a tire information placard that incorrectly states that they were equipped with 18-inch tires when it should state that the subject vehicles were equipped with 20-inch tires. The placard also lists the manufacturer’s recommended tire inflation pressure as 32 psi when it should have been marked 33 psi.

BMW claims that the tires installed on the subject convertible motor vehicles will not result in a vehicle overload condition in both the front and rear tires when the subject tires are inflated to the incorrectly listed manufacturer’s recommended cold tire inflation pressure of 32 psi. BMW says that the subject convertible vehicle tires comply with FMVSS No. 110 S4.2.1 which requires the vehicle normal load to be no more than 94 percent of the load rating at the vehicle manufacturer’s recommended cold inflation pressure for that tire. The vehicle normal load on the tire is the load on an individual tire that is calculated by distributing each axle’s share of the curb weight, accessory weight, and normal occupant weight, and dividing by 2. BMW calculated that a normal load per front tire is 534 kg and a normal load per rear tire is 466 kg. According to BMW’s assessment, the subject tires comply with FMVSS No. 110 S4.1.2 which requires the vehicle normal load to be no more than 94 percent of the load rating at the vehicle manufacturer’s recommended cold inflation pressure for that tire.

The load rating is the highest vehicle maximum load on the tire for the vehicle and is provided by the sources listed in S4.4.2 (a). Using the European Tyre and Rim Technical Organization (ETRTO) Standard Load table, BMW says the load rating for the front tire is 605 kg and the load rating for the rear tires is 700 kg. The sum of the load ratings for the front tires is 1,210 kg and the GAWR is 1,050 kg and the sum of the load ratings for the rear tires is 1,400 kg and the GAWR is 1,250 kg. Therefore, BMW says the 20-inch front and rear tires, “inflated to 32 psi, are sufficient to support vehicle loading.”

BMW says there are multiple sources available to the consumer to determine the correct tire pressure for tires equipped on the subject convertible vehicles. Specifically, BMW refers to FMVSS No. 110 S4.3(f) which requires that the tire information placard instructs the consumer to see Owner's Manual for additional information. BMW also refers to FMVSS No 138 S4.5(a) which requires the Owner's Manual to contain a statement that instructs the consumer to check each tire's inflation pressure monthly and if the consumer finds that the vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, the consumer should determine the proper tire inflation pressure for those tires.

Because those statements required by FMVSS No. 110 S4.3(f) and FMVSS No. 138 S4.5(a) are present in the Owner's Manual provided hardcopy and electronically in the vehicle, BMW contends that a consumer would be able to access the information needed to set the tire inflation pressures to the correct levels. Furthermore, BMW says a consumer can contact its customer relations service or its roadside assistance service which has representatives available 24/7 to assist with determining the correct tire pressure. The consumer is able to access the contact information for the roadside assistance service in the vehicle's portfolio, the vehicle's media console and via the emergency call button on the overhead console. The customer relations contact information can be found in the vehicle's portfolio, Owner's Manual and the Service and Warranty Book.

BMW states that its customer relations service has not received any contacts regarding the subject noncompliances. BMW is also unaware of any consumer experiencing issues or any accidents or injuries related to the subject noncompliances

BMW says that NHTSA has granted prior petitions that are similar to the subject petition. BMW does not reference a specific petition but states that NHTSA found "that although the tire information placard displayed the manufacturer's recommended cold tire inflation pressure which was a smaller value than that which was required for the tires equipped on the vehicle, the

load carrying capacity of the equipped tires, at this smaller tire pressure, was still sufficient and would not lead to a vehicle overload condition.

BMW concluded by expressing the belief that the noncompliances are inconsequential as they relate to motor vehicle safety, and that its petition to be exempted from providing notification of the noncompliance, as required by 49 U.S.C. 30118, and a remedy for the noncompliance, as required by 49 U.S.C. 30120, should be granted.

VI. Comments: NHTSA received one comment from the general public. While NHTSA takes great interest in the public's concerns and appreciates the commenter's feedback, the comment does not address the purpose of this particular petition.

VII. NHTSA's Analysis: The intent of FMVSS No. 110 is to ensure that vehicles are equipped with tires that are properly inflated to handle maximum vehicle loads and to provide relevant information to prevent overloading.

According to BMW, the M4 Coupe model's Tire and Loading Information label incorrectly displays a Vehicle Capacity Weight of 390 kg instead of the correct amount of 381 kg. BMW has determined that there would not be any adverse impact on these vehicles because the vehicle was designed to account for a larger vehicle capacity weight than the weight stated on the tire loading label. NHTSA concurs with BMW's rationale. A load of 9 kg ((20) pounds or (5) pounds per tire) is a 1 percent difference in the loading on each tire. We believe this loading to be well within the design safety factor of the tires. As stated by BMW, we also agree that the additional 9 kg load should not adversely affect vehicle braking, steering and stability due to the robustness of the subject vehicles being capable of accounting for a larger vehicle capacity weight than stated on the tire information placard. This marginal load should be within the design safety factor of the vehicle components as well.

NHTSA also concurs with BMW's statement that a vehicle designed to withstand a larger capacity weight than stated on its tire loading label would not present a consequential safety problem. Although the M4 Convertible is equipped with 20-inch tires, the model's Tire and

Loading Information label incorrectly displays a cold tire pressure of 32 psi when it should display 33 psi. Considering the specifications of the 20-inch tires in the ETRTO reference book, it is apparent that even at the lower listed tire pressure, the tires are more than adequate to carry the vehicle's load. The vehicle's equipped tires are Extra Load (XL) tires. ETRTO specifies use of Standard Load tables for tire pressures up to 36 psi. The load index for the front tires is 94 and at a pressure of 32 psi results in a load capacity of 605 kgs or 1210 kgs for the front axle. The GAWR for the front axle is 1050 kgs. The load index for the rear tires is 99 and at a pressure of 32 psi results in a load capacity of 700 kgs or 1400 kgs for the rear axle. The GAWR for the rear axle is 1250 kgs. Therefore, there is adequate load carrying capacity in the tire at the lower pressure and there is no safety issue resulting in underinflation of tires if a consumer uses the tire pressure on the vehicle's label.

Paragraph S4.2.1.2 of FMVSS No. 110 requires that the vehicle normal load on the tire shall not be greater than 94 percent of the load rating at the vehicle manufacturer's recommended cold inflation pressure for that tire. The vehicle normal load per tire is calculated by distributing 2 occupants (for a 4-occupant vehicle), at the front axle. Per FMVSS No. 110 definition of vehicle capacity weight, using 68 kgs per occupant results in a vehicle normal load per front tire of 534 kgs and a normal load per rear tire of 466 kgs.

BMW explained that they utilized a worst-case scenario by calculating the vehicle's normal load using an automatic transmission because it has a greater weight than the manual transmission, both of which may be utilized in the subject vehicles. For the front tires, the load rating is 605 kgs each, when multiplied by 94 percent, yields a value of 568 kgs, which exceeds the previously stated 534 kg normal vehicle load value. For the rear tires, the load rating is 700 kgs each, when multiplied by 94 percent yields a value of 658 kgs, which exceeds the previously stated 466 kg normal vehicle load value. NHTSA concurs with utilizing a worst-case scenario approach to these calculations as it is all inclusive of the affected vehicle population.

The purpose of the FMVSS No. 110 tire information label is to convey accurate information for the vehicle to be operated in a safe manner. As is the case with BMW in this petition, should a vehicle operator require additional or corroborating information regarding the vehicle's Tire and Loading Information Label, there are other information sources that can be consulted to clearly identify – in this case - the correct tire pressure. Should a vehicle operator ever question what the correct tire pressure should be, they can consult the vehicle's hardcopy owner's manual, the in-vehicle electronic owner's manual, or contact BMW directly for further information in order to verify the correct tire pressure.

NHTSA has previously granted petitions for inconsequential noncompliance regarding FMVSS No. 110 related to vehicles for which the vehicle placard contained tire size and tire pressure information which did not match the tires equipped on the vehicle under similar conditions.

VIII. NHTSA's Decision: NHTSA agrees with BMW that the subject noncompliance is inconsequential to motor vehicle safety because there would be no effect of the noncompliance on the operational safety of the subject vehicles. No adverse impact on braking, steering or on-road stability can result in driving the subject vehicles at the incorrect vehicle capacity weight listed on the tire information placard. The vehicles were designed to account for a larger vehicle capacity weight than the weight stated on the tire information placard. Furthermore, the affected vehicles can maintain the maximum vehicle loads even at the lower manufacturer's recommended cold tire inflation pressure on the tire information placard.

In consideration of the foregoing, NHTSA finds that BMW has met its burden of persuasion that the FMVSS No. 110 noncompliance in the affected vehicles is inconsequential to motor vehicle safety. Accordingly, BMW's petition is granted and BMW is exempted from the obligation of providing notification of, and a free remedy for, that noncompliance under 49 U.S.C. 30118 and 30120.

NHTSA notes that the statutory provisions (49 U.S.C. 30118(d) and 30120(h)) that permit manufacturers to file petitions for a determination of inconsequentiality allow NHTSA to exempt manufacturers only from the duties found in sections 30118 and 30120, respectively, to notify owners, purchasers, and dealers of a defect or noncompliance and to remedy the defect or noncompliance. Therefore, this decision only applies to the subject vehicles that BMW no longer controlled at the time it determined that the noncompliance existed. However, the granting of this petition does not relieve vehicle distributors and dealers of the prohibitions on the sale, offer for sale, or introduction or delivery for introduction into interstate commerce of the noncompliant vehicles under their control after BMW notified them that the subject noncompliance existed.

(Authority: 49 U.S.C. 30118, 30120; delegations of authority at 49 CFR 1.95 and 501.8)

Otto G. Matheke III,

Director, Office of Vehicle Safety Compliance.

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